

SCHEDULED AND AUTONOMOUS TRANSMISSION AND ACKNOWLEDGEMENT

ABSTRACT

Techniques for efficient signaling to and from a plurality of mobile stations are disclosed. In one embodiment, a subset of mobile stations may be allocated a portion of the shared resource with one or more individual access grants, another subset may be allocated a portion of the shared resource with a single common grant, and yet another subset may be allowed to use a portion of the shared resource without any grant. In another embodiment, an acknowledge and continue command is used to extend all or a subset of the previous grants without the need for additional requests and grants, and their associated overhead. In one embodiment, a traffic to pilot ratio (T/P) is used to allocate a portion of the shared resource, allowing a mobile station flexibility in selecting its transmission format based on T/P.